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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/606,332

06/26/2003

Henry Faken

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EXAMINER

NGUYEN, LAMSON D

ART UNIT

PAPER NUMBER

2861

NOTIFICATION DATE

DELIVERY MODE

07/03/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/606,332

Applicant(s)

FAKEN, HENRY

Examiner

Lamson D. Nguyen

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 8-13, 15, 17, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6, 7, 14, 16 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/26/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 , 13, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claims 2, 13, 18, it is not clear what the limitation “on the basis of the number of available discharging elements N, said distance M and said effective number of discharging elements N.sub.eff are determined by combining at least said number of printing stages S, a certain number q of of said groups of discharging elements, the printing pitch and the element pitch” means. Furthermore, this limitation does not establishment any structural characteristic to the claimed apparatus.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2861

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 8-10, 12, 15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitoshi Nishikori (EP1120269).

Nishikori teaches a printing apparatus and printing method comprising:

Claims 1, 12, 17:

- A printing device comprising: at least one print head for image-wise forming dots of a marking substance at a printing pitch P on an image-receiving member in relation to a pattern of image pixels (figure 13, head having nozzle arrays 100, 101, and 102, each head having nozzles disposed at a predetermined pitch), said print head comprising a plurality of N discharging elements being arranged in at least one linear array, being spaced at a predetermined element pitch (figure 13, head having nozzle arrays 100-102 each array having nozzles at a predetermined pitch), and being composed of at least a first group of discharging elements which, in operation, image-wise form dots of a marking substance of a first size and a second group of discharging elements which, in operation, image-wise form dots of a marking substance of a second size different from said first size (figure 13, head having nozzle arrays 100-102, each array comprising small and large nozzles) , on said image-receiving member (figure 1, paper medium 8); displacement means for displacing said image-receiving member in the sub scanning direction (figure 1, roller 31 to advance the paper); selecting means for selecting a print mask defining a number of S printing stages required to completely render said pattern of image pixels, S being an integer number of at

least 2 (figure 13, teaches different printmasks 1-7 in a 2-pass printing mode); and control means for controlling said displacement means and for controlling said plurality of N discharging elements (figure 13 teaches medium advance); wherein in operation, to limit the visibility of systematic banding artifacts in the sub scanning direction, on the basis of the difference between said first size and said second size, said control means controls said displacement means such that said image receiving member is displaced over a distance of M and selects an effective number of discharging elements $N_{\text{sub.eff}}$ of said plurality of N discharging elements for image-wise activation, where $N_{\text{sub.eff}} \leq N$ (figure 13 teaches to reduce print uniformity due to different sized nozzles, nozzles arrays 100-102 are scanned in a print/forward direction, followed by an advancement of the paper and scanning of the nozzle arrays 100-102 in a backward direction, wherein the number of nozzles used are represented by R1 and R2 rasters in which the number of nozzles in these R1 and R2 rasters are less than the total number of nozzles in these 3 nozzle arrays 100-102).

Claims 5, 15, 20:

- The printing device as recited in claim 1, wherein a ratio between the element pitch and the printing pitch is an integer number p of at least 2 (figure 9).

Claim 8:

- The printing device as recited in claim 1, wherein said print head comprises a plurality of N discharging elements arranged in at least a first and a second linear array (figure 3).

Claim 9:

- The printing device as recited in claim 8, wherein said first linear array is composed of said first group of discharging elements and said second linear array is composed of said second group of discharging elements (figure 3).

Claim 10:

- The printing device as recited in claim 1, wherein said at least one print head includes: a first print head of a colour and at least a second print head of said colour, which together comprise a plurality of N discharging elements being arranged in at least one linear array on said first print head and at least one linear array on said second print head (figure 3 teaches 2 nozzle arrays of cyan, magenta, and yellow, wherein the nozzles are disposed linearly).

Claim 11:

- The printing device as recited in claim 10, wherein the discharging elements of said first print head form said first group and the discharging elements of said second print head form said second group (figure 3).

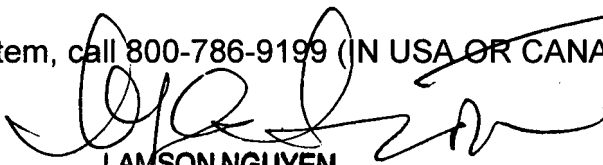
Allowable Subject Matter

Claims 3-4, 6-7, 14, 16, 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamson D. Nguyen whose telephone number is 571-272-2259. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LAMSON NGUYEN
PRIMARY EXAMINER
06/19/07

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